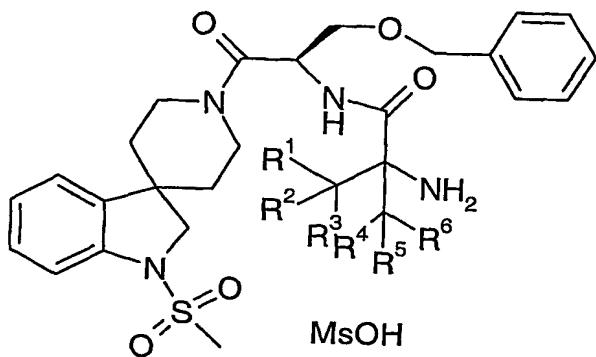


Claims

1. A radiolabeled growth hormone secretagogue comprising at least one compound of the formula :



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wherein R<sup>1</sup> to R<sup>6</sup> are independently of each other H or T, and wherein at least one of R1 to R6 are T.

10 2. The radiolabeled growth hormone secretagogue of claim 1, wherein the specific activity of the radiolabeled growth hormone secretagogue is between 86.4 Ci/mmmole and 115.2 Ci/mmmole.

15 3. The radiolabeled growth hormone secretagogue of claim 2, wherein the specific activity of the radiolabeled growth hormone secretagogue is 97.5 Ci/mmmole.

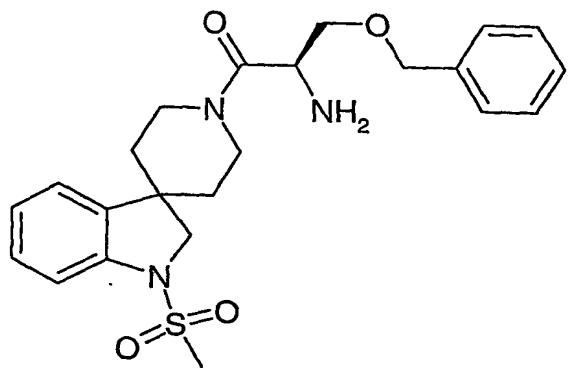
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4. Use of a radiolabeled growth hormone secretagogue of any one of claims 1 to 3 for identifying a compound that can bind to a growth hormone secretagogue receptor.

20 5. Use of a radiolabeled growth hormone secretagogue of any one of claims 1 to 3 for identifying a cellular receptor as a growth hormone secretagogue receptor.

6. Use of a radiolabeled growth hormone secretagogue of any one of claims 1 to 3 for identifying the activity of a compound as a growth hormone secretagogue.

7. A process of synthesizing a radiolabeled growth hormone secretagogue which  
5 comprises reacting a compound having a formula:



with X- $\alpha$ -aminoisobutyric acid- [methyl-T], where X is defined as a protecting group which is subsequently removed if present and salts are formed if desired.

10 8. A method of identifying a cellular receptor as a growth hormone secretagogue receptor comprising contacting a host suspected to express a growth hormone secretagogue receptor with the radiolabeled growth hormone secretagogue of any one of claims 1 to 3 and determining whether binding has occurred.

15 9. A method for identifying a compound that can bind to a growth hormone secretagogue receptor comprising contacting said compound with a host expressing a growth hormone secretagogue receptor in the presence of the radiolabeled growth hormone secretagogue of any one of claims 1 to 3 and monitoring whether the compound influences the binding of the radiolabeled growth hormone secretagogue of  
20 any one of claims 1 to 3 to the growth hormone secretagogue receptor.

10. A method for identifying the activity of a compound as a growth hormone secretagogue comprising contacting the compound suspected of having activity as a growth hormone secretagogue with a host expressing a growth hormone secretagogue receptor in the presence of the radiolabeled growth hormone secretagogue of any one of  
5 claims 1 to 3 and monitoring whether the compound suspected of having activity as a growth hormone secretagogue influences the binding of the radiolabeled growth hormone secretagogue of any one of claims 1 to 3 to the growth hormone secretagogue receptor.

10 11. A compound identified by the methods of any one of claims 9 or 10, or pharmaceutically acceptable salts thereof.

12. A pharmaceutical composition comprising a compound of claim 11 and a pharmaceutically acceptable carrier.

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13. The radiolabeled ligand, compounds, methods, process, uses and composition substantially as hereinbefore described, especially with reference to the foregoing examples.